REMARKS/ARGUMENTS:

Claims 6-18, 20 and 23-24 are canceled herein, and claims 25-30 are added, so claims 1-5, 19, 21-23 and 25-30 remain pending. Claim 19 is amended with the subject matter of canceled claim 20, supported at page 11 lines 10-11 and element 124 of Figure 2. Added claims 27-29 recite similar subject matter as claims 19 and 21-23 but are directed to an embodied computer program (which is supported at page 13 lines 4-9), so no new matter is added. New claim 30 repeats certain elements of amended claim 19 and adds subject matter respecting finding or creating a new physical link when a current physical link is determined to have failed. This subject matter is supported at page 8 lines 11-22. Exemplary embodiments of the physical links are presented at page 15 lines 6-10. Claim 1 is amended similarly to claim 19, but with language directed to its previously-recited elements and also the subject matter of claim 30. Added claims 25-26 depend from claim 1 and recite the additional subject matter of canceled claim 20 and of new claim 30, respectively, with more specificity.

In the Office Action dated January 12, 2006, the Examiner has rejected all claims as anticipated by Yamagami (US Pub. 2003/0233518). The Applicants thank the Examiner for a thorough search and particularized citations in the Office Action. The subject matter of now-canceled claim 20 is not seen to be anticipated by Yamagami, as detailed below. That subject matter is now recited in independent claims 1, 19 and 27.

Particular to claim 20, the Office Action asserts anticipatory disclosure at Yamagami paragraphs [0081], [0083], [0084], [0088] and [0089], and states that Yamagami "discloses many information tables for mapping which can be used to querying the state of mirroring to determine a proper configuration for an application as illustrated in Applicant's claim language". The cited paragraphs of Yamagami disclose, in order, an application information table that maps data objects to physical volumes, a file system information table that maps each file system name to a logical volume, and a physical volume information table that maps a physical volume to a RAID group, a physical disk, and mirrored physical volumes.

The Applicant agrees that such information tables may be used for mirroring data, but nowhere is Yamagami seen to disclose querying the state of the mirroring as recited in former claim 20 and now in independent claims 19 and 27. Yamagami builds the tables in the cited

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paragraphs based on the primary volumes (primary being those volumes to be mirrored). Yamagami then selects appropriate volumes from a pool and mirrors the data to them. Nowhere is Yamagami seen to query a state of mirroring (or a state of conforming, as in claim 1). By its plain language, a 'state' of mirroring/conforming is a current condition while the mirroring/conforming is ongoing. In Figure 2 (element 124) and page 11 lines 10-16, the database has been copied already, at least initially, but polling of the storage subsystem is continuous so the mirroring is ongoing. Claims 19 and 27 recite this environment in their preamble: "for extending a storage systems hardware mirroring function". Yamagami is not seen to query or monitor an ongoing state of a database mirroring function. To the contrary, the disclosure of Yamagami appears to leave off exactly where the subject matter of claims 19 and 27 might extend it for continuous polling and interim or continuous querying as the mirroring function is made to be ongoing.

It is not enough for anticipation, as the Office Action suggests, that Yamagami's discloses information tables that might be useful for querying a state of mirroring; anticipation requires that Yamagami disclose the claimed 'querying' element. Yamagami does not, and so claims 19 and 27 are seen to be patentable over Yamagami. Claims 21-22 and 28-29 depend from these, and therefore are seen to be in condition for allowance.

Claim 30 is added, which also recites querying a state of mirroring, but in claim 30 a link is determined to have failed and describes determining another link or creating a new link for the mirroring. Yamagami is not seen to disclose this aspect, especially in the context of querying a state of the mirroring, so claim 30 is seen to be in condition for allowance.

Claim 1 is amended with the querying aspect detailed above but using language specific to already-recited elements of claim 1. Note that in claim 1 as amended, the query can be directed to either the subject matter of claim 19 as amended (proper configuration) or claim 30 (failed link). Added claims 25-26 add specificity to these different aspects. For the above reasons, claim 1 as amended is seen to patently distinguish over Yamagami, so it and its dependent claims 2-5 and 25-26 are also seen to be in condition for allowance.

The Examiner is respectfully requested to review the cited art in view of the above claim amendments and detailed arguments, withdraw the remaining rejections and pass claims 1-5,

19, 21-23 and 25-30 to issue. The undersigned representative welcomes the opportunity to resolve any matters that may remain, formal or otherwise, via teleconference at the Examiner's discretion.

Respectfully submitted:

_____   ___May 12, 2006_____
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